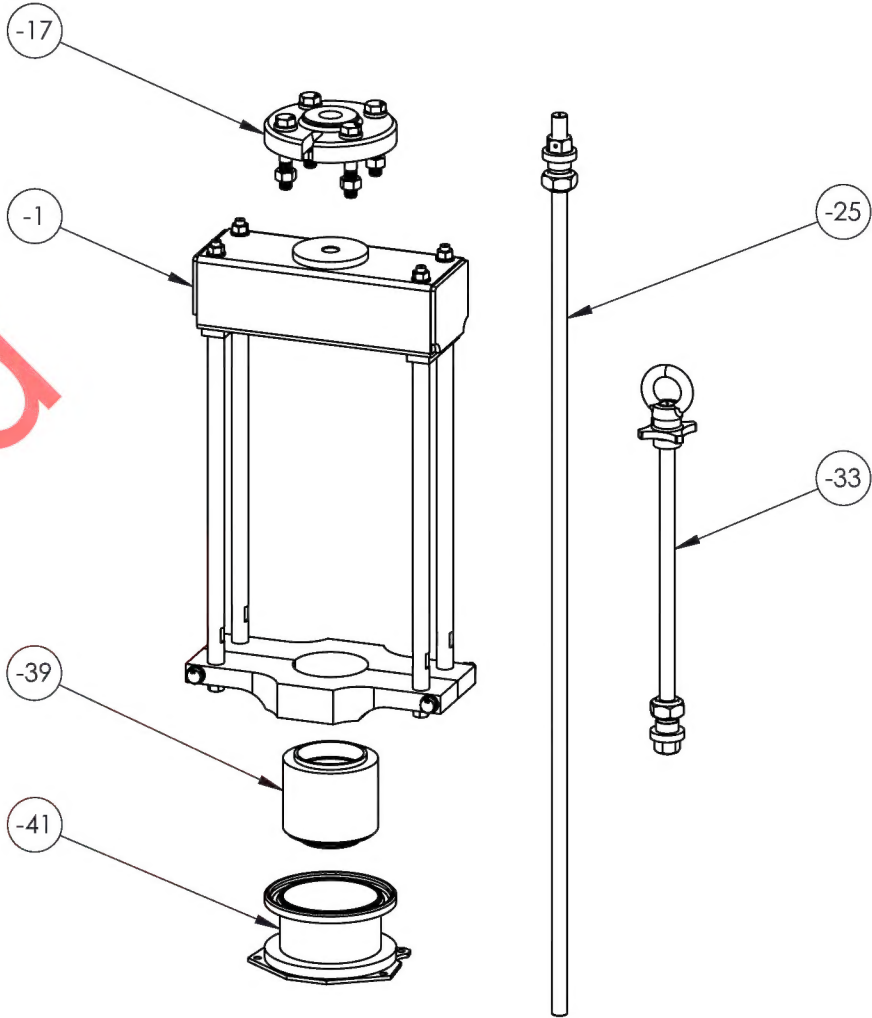


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		RELEASED FOR PRODUCTION	6/22/2016	DPD	JAG



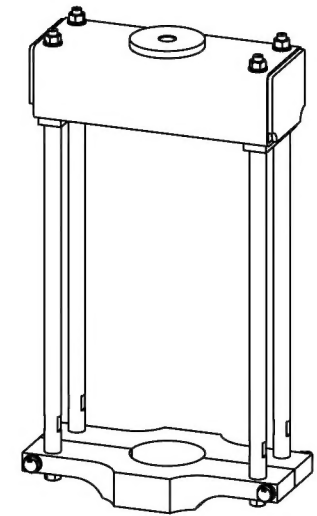
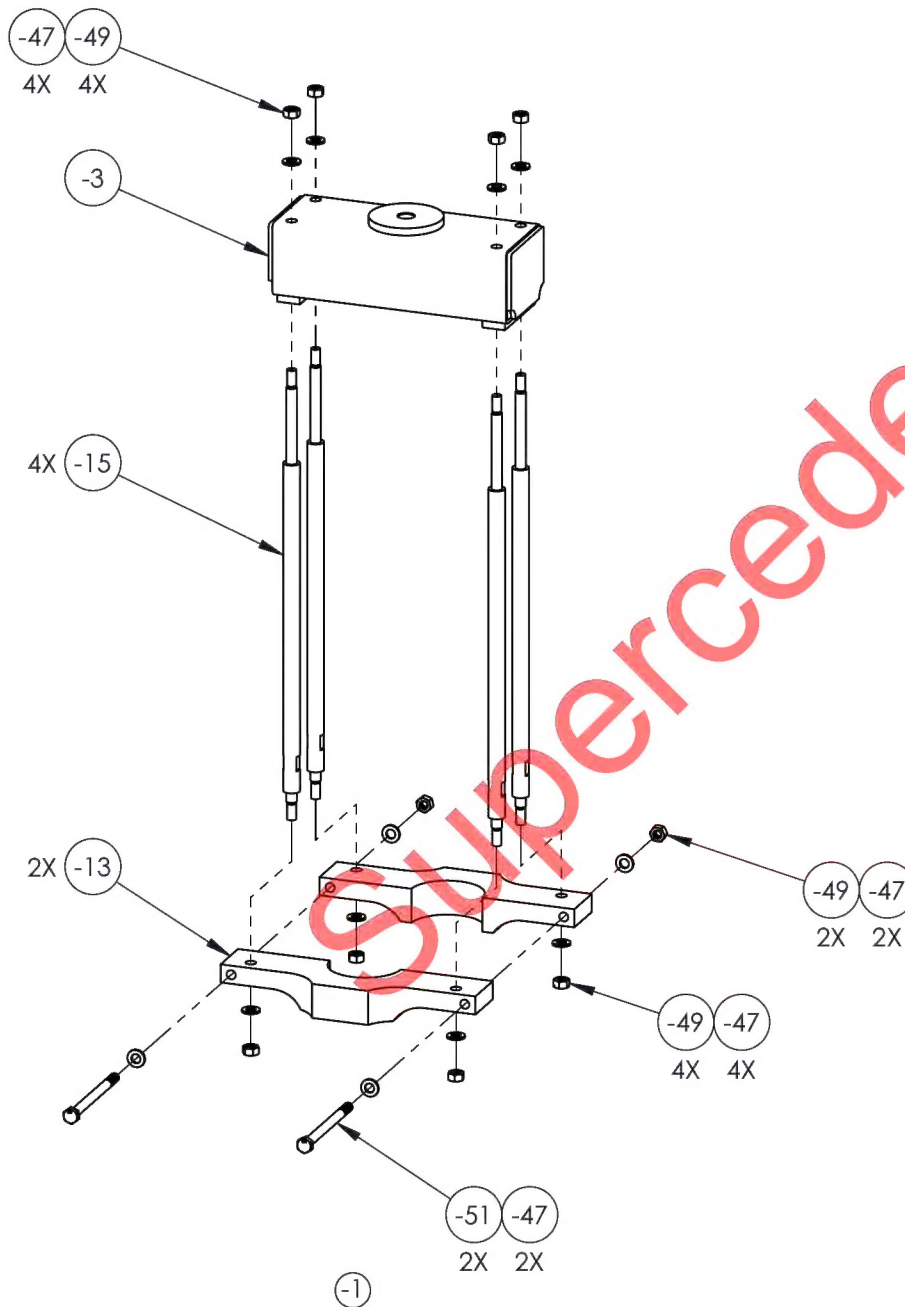
	ASSY QTY	ASSY QTY	ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
				X		-1	1	PULLER ASSEMBLY			2
			X	1		-3		PULLER WELDMENT			3
			1			-5		PULLER TUBE	A36/1018/1020 HR		4
			1			-7		PULLER BOSS	1018/1020 CR		5
			2			-9		PULLER PLATE	A36/1018/1020 HR		6
			2			-11		END CAP	A36/1018/1020 HR		7
				2		-13		PULLER HALF	1018/1020 CR		8
				4		-15		PULLER BOLT	4140/4142		9
		X				-17	1	PULLER CAP ASSEMBLY			10
		1				-19		PULLER CAP	4140/4142 Q & T		11
		4				-21		BUSHING	4140/4142 Q & T		12
		4				-23		WASHER	4140/4142 Q & T		13
	X					-25	1	LONG ROD ASSEMBLY			14
	1					-27		LONG ROD	O-1		15
1	1					-29		NUT	4140/4142 Q & T		16
1	1					-31		HEX NUT	4140/4142 Q & T		17
X						-33	1	SHORT ROD ASSEMBLY			18
1						-35		SHORT ROD	O-1		19
1						-37		LOBED NUT	4140/4142 Q & T		20
						-39	1	PULLER PISTON	4140/4142		21
						-41	1	PULLER CYLINDER	4140/4142		22
		4			B/O	-43		HEX HEAD CAP SCREW	STEEL	M16 X 2mm X 90mm, CLASS 10.9 (MCMASTER-CARR #95327A785)	10
1					B/O	-45		ROUND EYE NUT	STEEL	M20 X 2.5mm, Ø40mm I.D. X Ø72mm O.D. X 71mm (MCMASTER-CARR #3112T56)	18
				12	B/O	-47		WASHER	STEEL	M12 (MCMASTER-CARR #91166A290)	2
				10	B/O	-49		HEX NUT	STEEL	M12 X 1.75mm (MCMASTER-CARR #90591A181)	2
				2	B/O	-51		HEX HEAD CAP SCREW	STEEL	M12 X 1.75mm X 160mm (MCMASTER-CARR #91280A752)	2
		4			B/O	-53		HEX NUT	STEEL	M16 X 2mm, CLASS 10 (MCMASTER-CARR #92497A600)	10
		1			B/O	-55		SPRING PIN	S.S.	M4 X 30mm (MCMASTER-CARR #91610A512)	13
						-61	1	SAFETY INFORMATION NOTICE	PAPER		
ASSY -33	ASSY -25	ASSY -17	ASSY -3	ASSY -1							

NOTES:
1. REF. EUROCOPTER T/N: 117-12010W62.
2. PART OF KIT RBE117-12010W62.

DART AEROSPACE			
TITLE MAST REPLACEMENT KIT			
DWG NO. RBE117-12010W62D			REV 1
MAT'L HEAT TREAT FINISH SPEC		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125/✓	
DRAWN BY: DUERFELDT		1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED: CLOUGH		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY		USED ON MODEL	
APPROVED: GILBERT		EC145	
SCALE 1:10		DATE 2/22/2016	SHEET 1 OF 22

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			INITIAL
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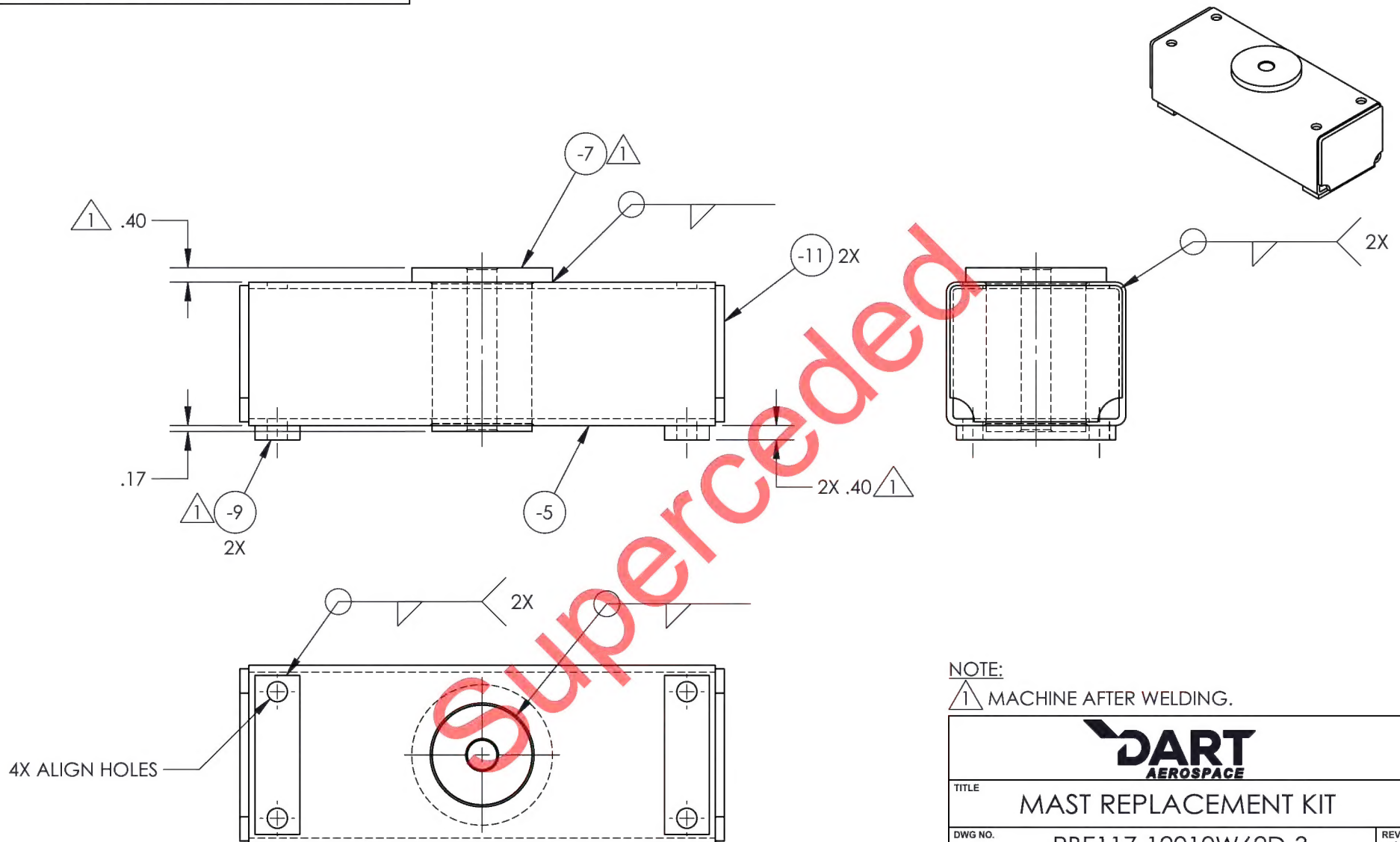


PULLER ASSEMBLY

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-1	REV 1
MAT'L _____ HEAT _____ TREAT _____ FINISH _____ SPEC _____	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125° ✓	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: CLOUGH	EC145
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:10	DATE 2/22/2016
SHEET 2 OF 22	

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4X ALIGN HOLES

(-3)

PULLER WELDMENT

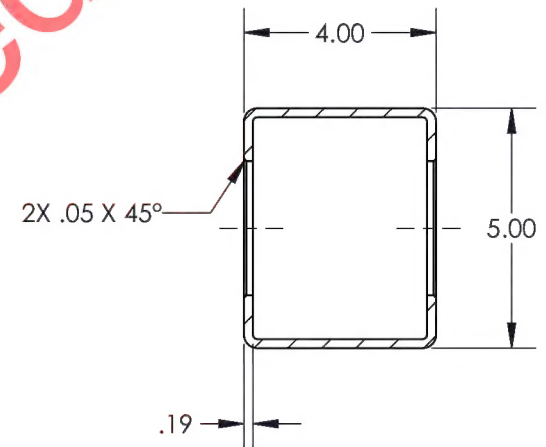
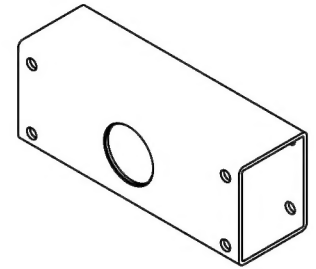
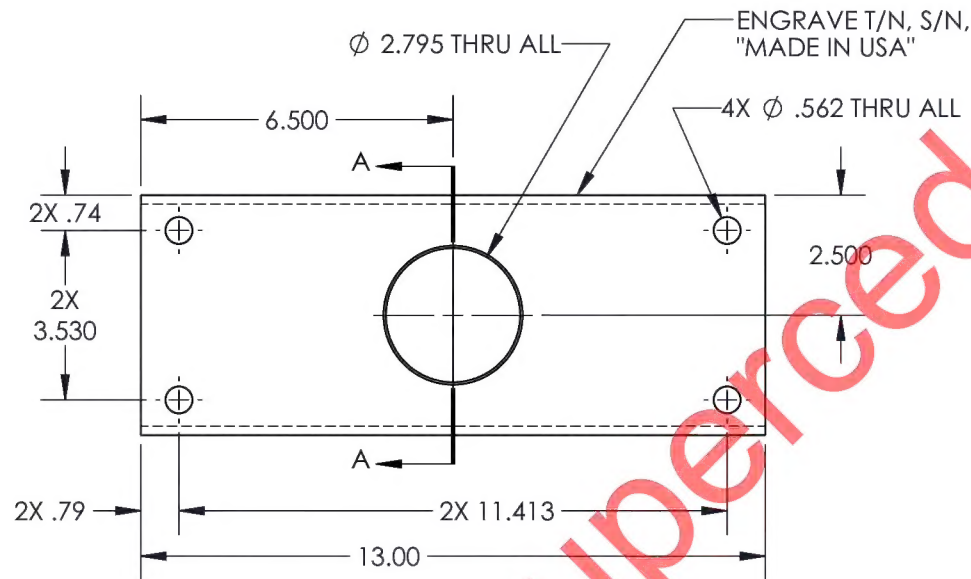
NOTE:

1 MACHINE AFTER WELDING.

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-3	REV 1
MAT'L REAT TREAT FINISH BLACK OXIDE SPEC QMSI-6.2.2, B.O. REV D DRAWN BY: DUERFELDT CHECKED: CLOUGH OPPTS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125° 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
USED ON MODEL EC145	
SCALE 1:4	DATE 2/22/2016
SHEET 3 OF 22	

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REV	ECR	DESCRIPTION	DATE



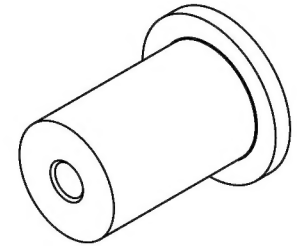
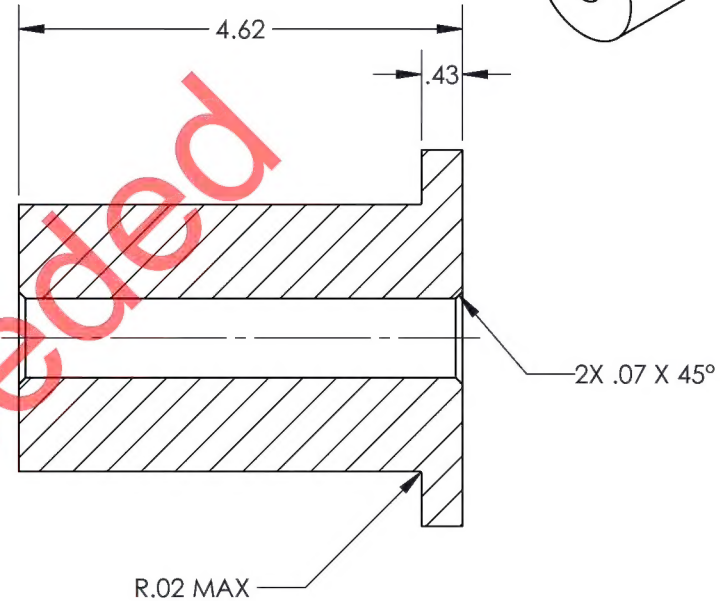
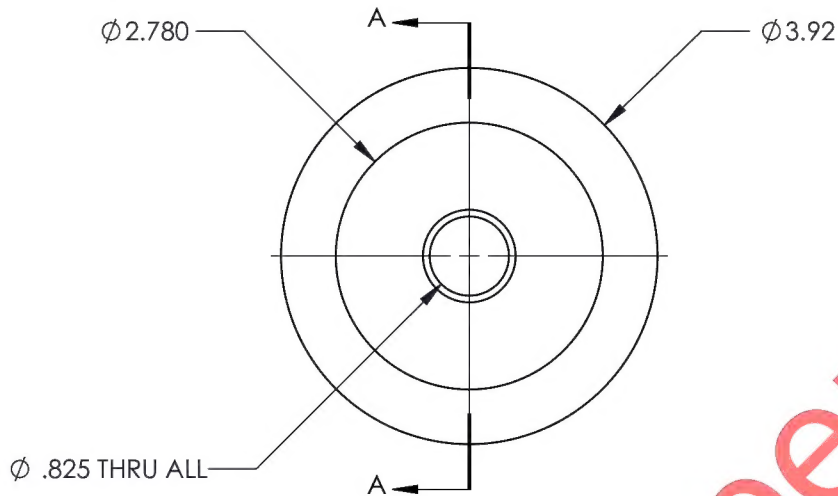
SECTION A-A

(-5)
PULLER TUBE

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-5	REV 1
MAT'L A36/1018/1020 HR TREAT FINISH SEE -3 SPEC	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125✓	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: CLOUGH	EC145
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:4	DATE 2/22/2016
SHEET 4 OF 22	

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				APPROVED



SECTION A-A

Supercircled

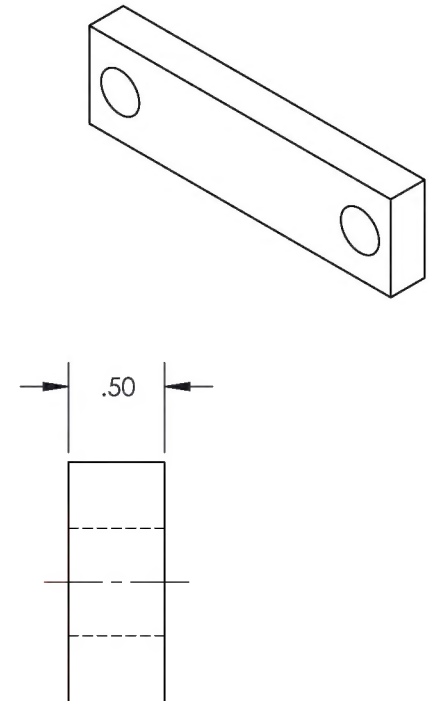
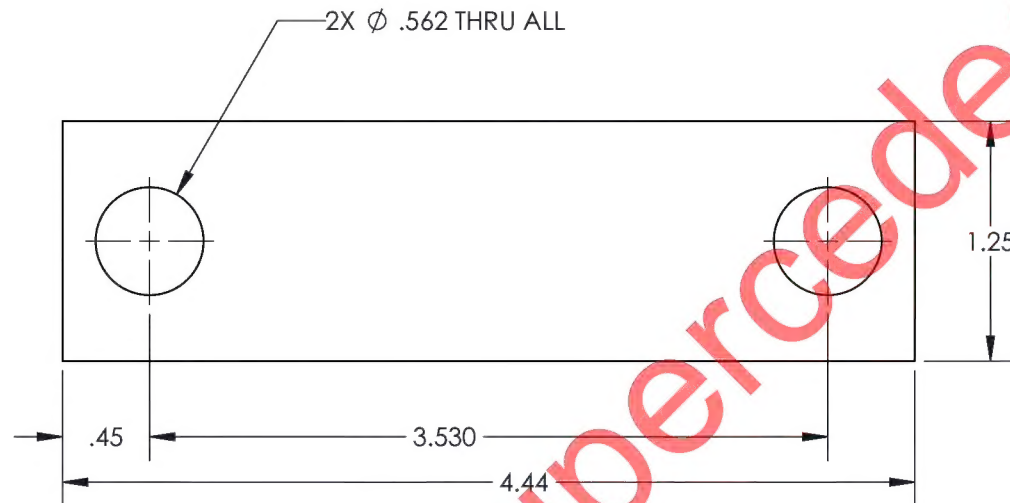
(-7)

PULLER BOSS

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-7	REV 1
MAT'L 1018/1020 CR	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH SEE -3	.XXX ± .005 FRACTIONS ± 1/8
SPEC	.XX ± .01 ANGLES ± .5°
	.X ± .1 SURFACES = 125°
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES
CHECKED: CLOUGH	.015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY
QA APPR: LINDSAY	AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER
	ASME Y14.5M-2009
	USED ON MODEL
	EC145
SCALE 1:2	DATE 2/22/2016
	SHEET 5 OF 22

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			INITIAL
			APPROVED

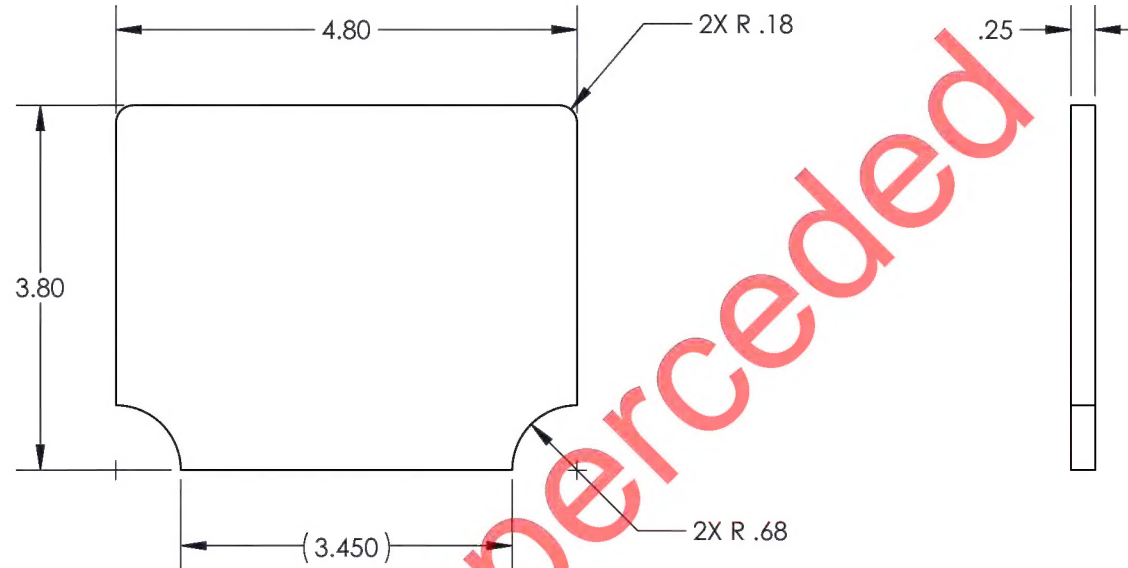


(-9)
PULLER PLATE

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-9	REV 1
MAT'L A36/1018/1020 HR	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH SEE -3	.XXX ± .005 FRACTIONS ± 1/8
SPEC	.XX ± .01 ANGLES ± 5°
	.X ± .1 SURFACES = 125°
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES
CHECKED: CLOUGH	.015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY
QA APPR: LINDSAY	AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER
	ASME Y14.5M-2009
	USED ON MODEL
	EC145
SCALE 1:1	DATE 2/22/2016
	SHEET 6 OF 22

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				APPROVED



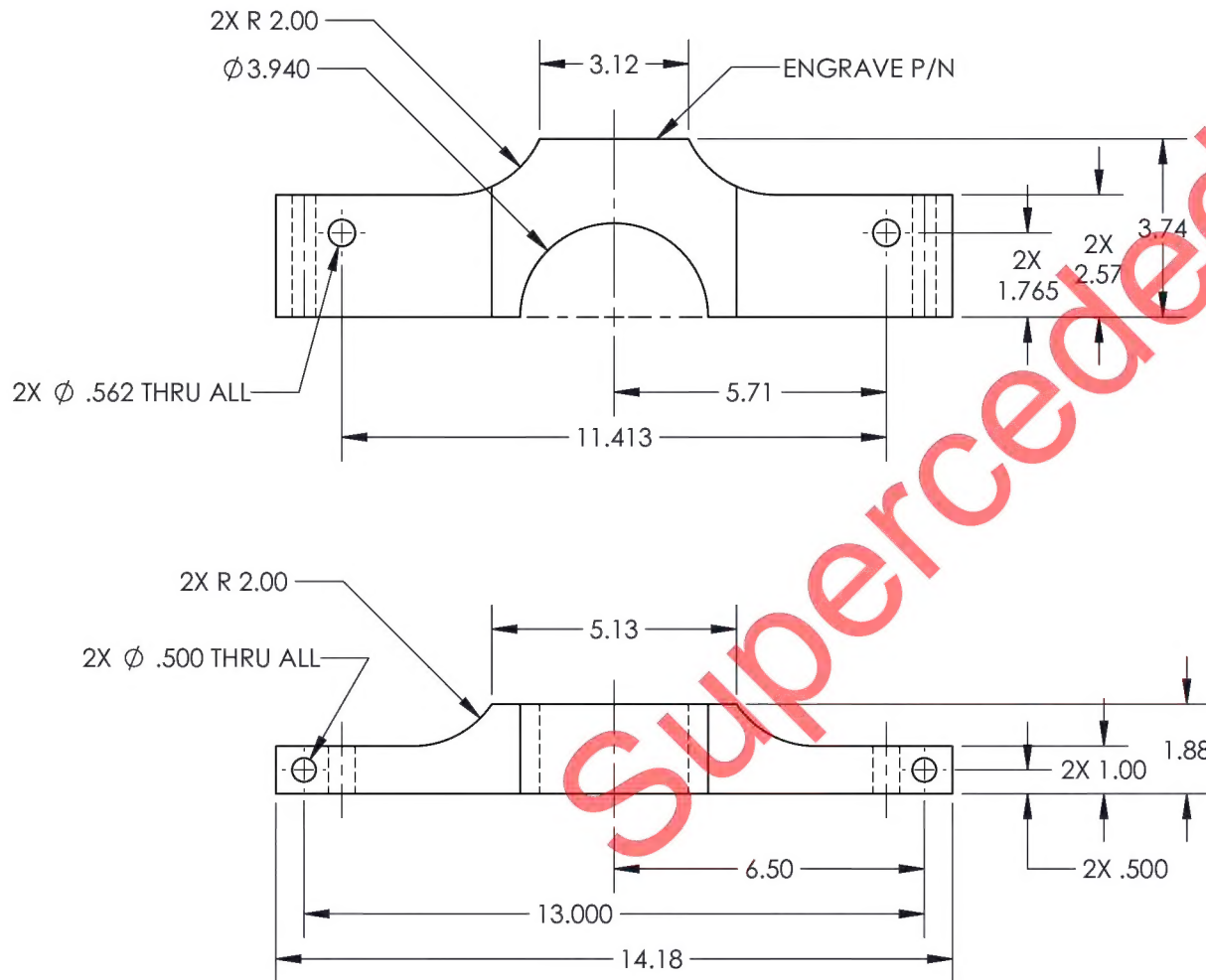
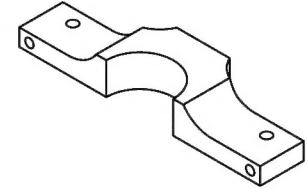
(-11)

END CAP

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-11	REV 1
MAT'L A36/1018/1020 HR	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH SEE -3	.XXX ± .010 FRACTIONS ± 1/8
SPEC	.XX ± .03 ANGLES ± 1°
	.X ± .1 SURFACES = 125° ✓
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES
CHECKED: CLOUGH	.015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY
QA APPR: LINDSAY	AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER
	ASME Y14.5M-2009
SCALE 1:2	DATE 2/22/2016
	SHEET 7 OF 22

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				APPROVED



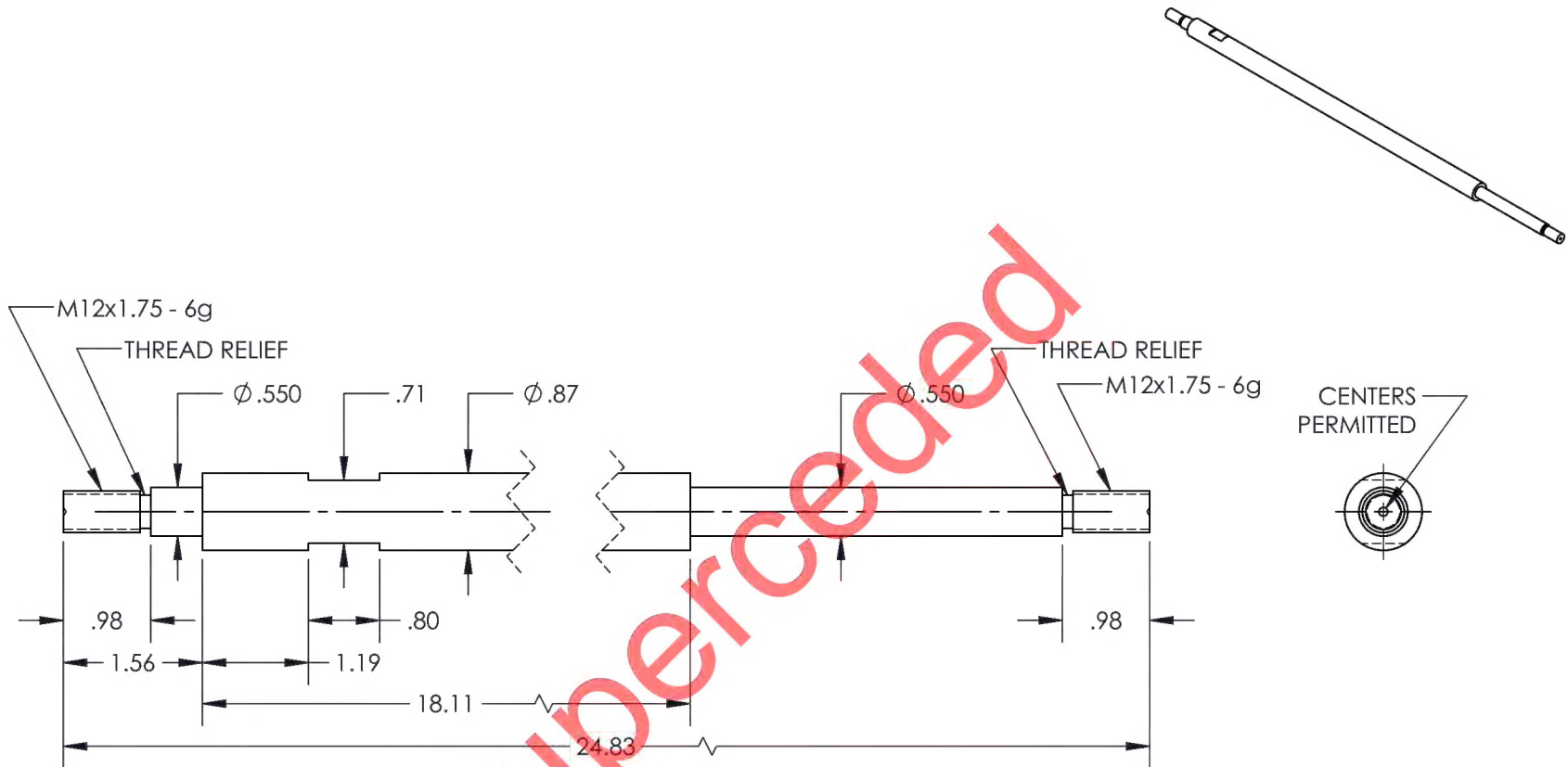
(13)

PULLER HALF

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-13	REV 1
MAT'L 1018/1020 CR	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX ± .005 FRACTIONS ± 1/8
FINISH BLACK OXIDE	.XX ± .01 ANGLES ± 5°
SPEC QMSI-6.2.2, B.O. REV D	.X ± .1 SURFACES = 125°
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	EC145
SCALE 1:4	DATE 2/22/2016
SHEET 8 OF 22	

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				APPROVED

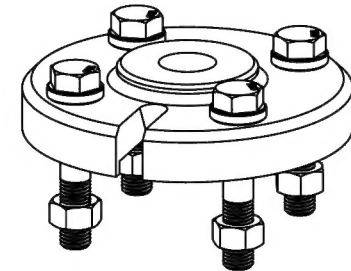
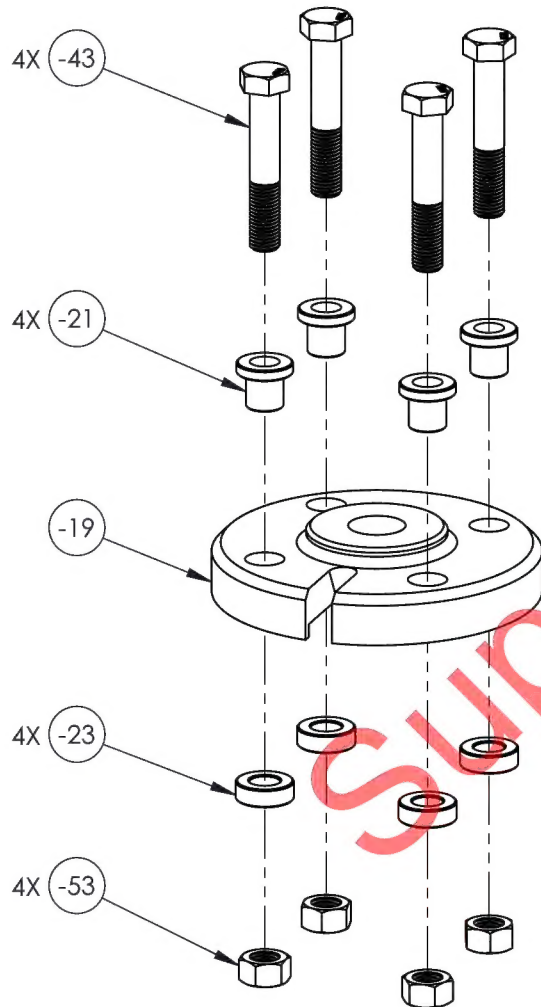


(15)
PULLER BOLT

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-15	REV 1
MAT'L 4140/4142	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX ± .005 FRACTIONS ± 1/8
FINISH BLACK OXIDE	.XX ± .01 ANGLES ± 5°
SPEC QMSI-6.2.2, B.O. REV D	.X ± .1 SURFACES = 125✓
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	EC145
SCALE 1:2	DATE 2/22/2016
SHEET 9 OF 22	

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				APPROVED

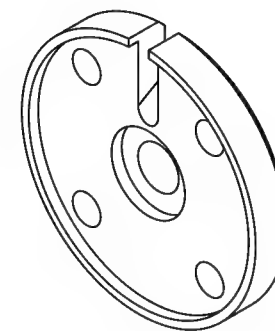
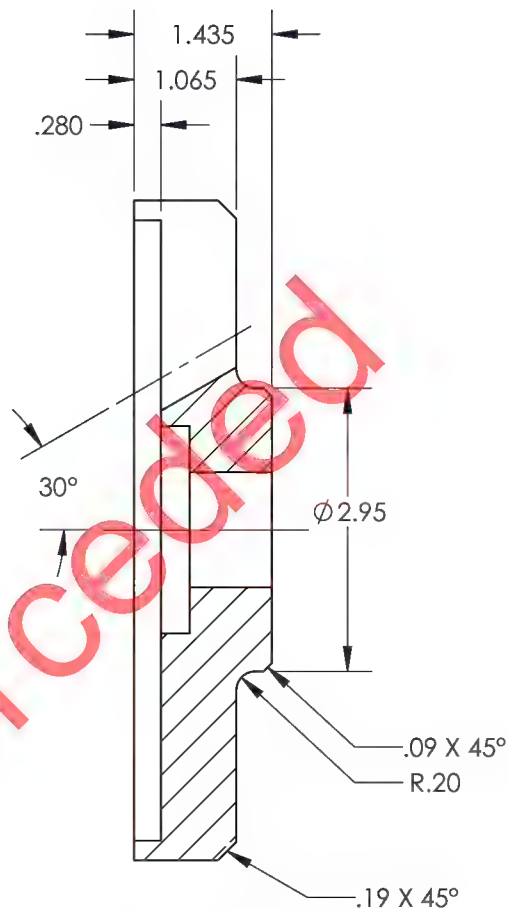


(17)

PULLER CAP ASSEMBLY

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-17	REV 1
MAT'L _____ REAT _____ TREAT _____ FINISH _____ SPEC _____	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125° ✓	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: CLOUGH	EC145
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:4	DATE 2/22/2016
SHEET 10 OF 22	

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



SECTION A-A



TITLE

MAST REPLACEMENT KIT

DWG NO.

RBE117-12010W62D-19

REV	1
-----	---

MAT'L	4140/4142 Q & T
-------	-----------------

HEAT

TREAT	BLACK OXIDE
FINISH	

SPEC	QMSI-6.2.2, B.O. REV D
------	------------------------

DRAWN BY:	DUERFELDT
-----------	-----------

CHECKED:	CLOUGH
----------	--------

CHECKED:	CLOUGH
OPPS APPR:	ANDERSON

OFFS APPR:	ANDERSON
QA APPR:	LINDSAY

QA APPR:	LINDSAY
APPROVED:	GILBERT

APPROVED:	GILBERT
SCALE	DATE

	UNLESS OTHERWISE SPECIFIED
--	----------------------------

DIMENSIONS ARE IN INCHES
XXX + .005 FRACTIONS + 1/8

.XXX ± .005	FRACTIONS ± 1/8
.XX ± .01	ANGLES ± .5°
.X ± .1	QUOTES ± .05

.X ± .1 SURFACES = 125 ✓
1 BREAK ALL SHARP EDGES

1. BREAK ALL SHARP EDGES
.015 x 45° OR .015R

2. DIMENSIONAL LIMITS APPLY AFTER PLATING

3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

ASME Y14.5M-2009
USED ON MODEL

	USED ON MODEL
	EC145

	EC145
1/22/2018	SHEET 11 OF 30

SCALE 1:2

DATE	2/22/2016
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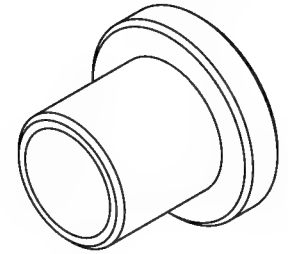
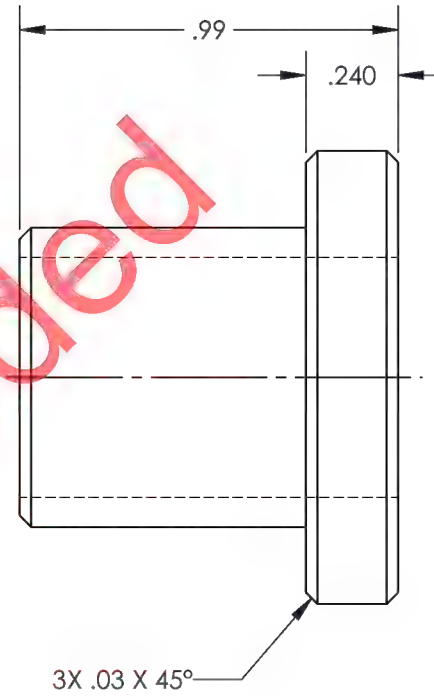
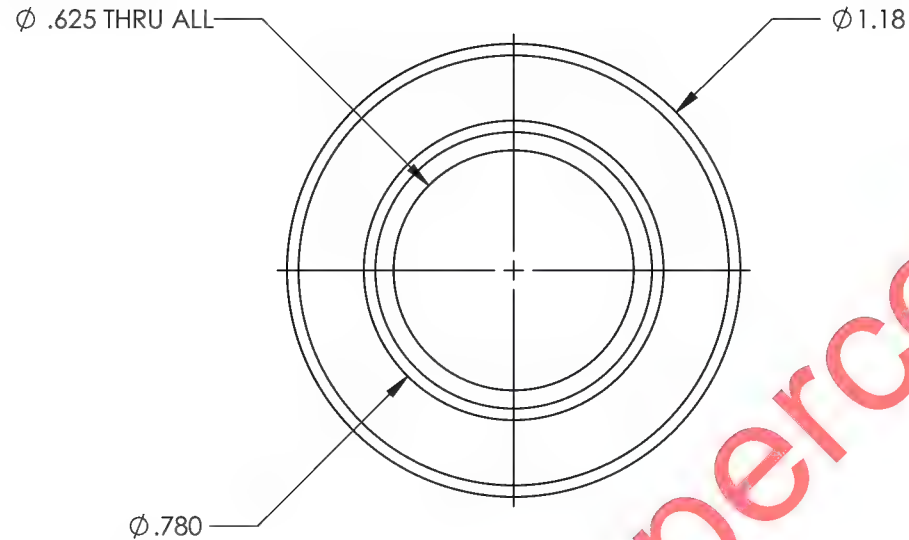
SHEET 11 OF 22

-19

PULLER CAP

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				APPROVED



Superceded

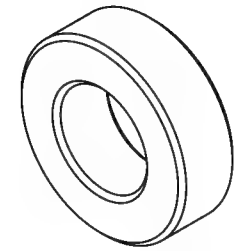
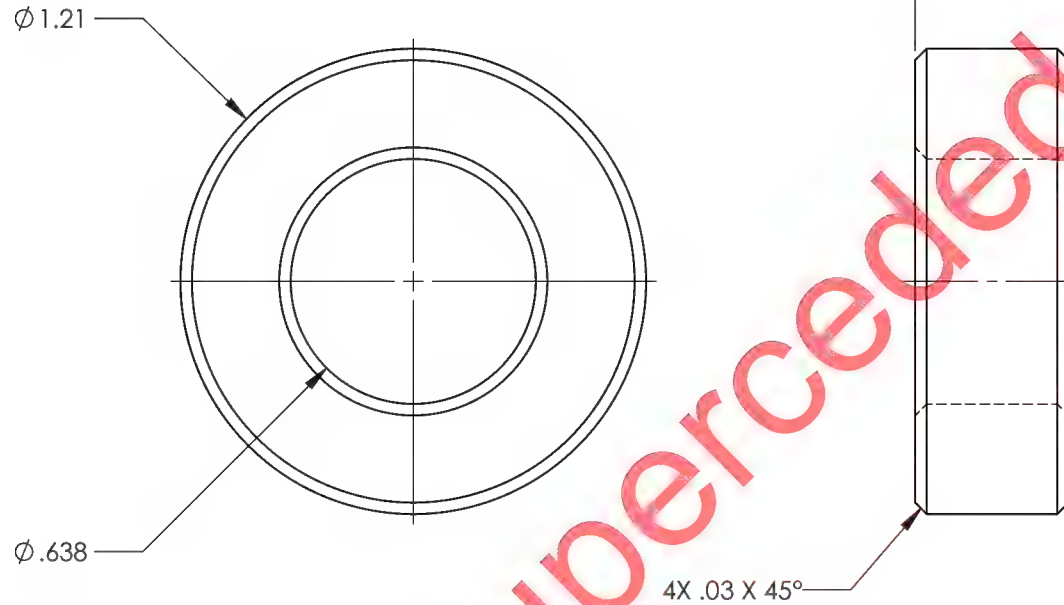
(-21)

BUSHING

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-21	REV 1
MAT'L 4140/4142 Q & T	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH BLACK OXIDE	.XXX ± .005 FRACTIONS ± 1/8
SPEC QMSI-6.2.2, B.O. REV D	.XX ± .01 ANGLES ±.5°
DRAWN BY: DUERFELDT	.X ± .1 SURFACES = 125°
CHECKED: CLOUGH	1. BREAK ALL SHARP EDGES
OPPS APPR: ANDERSON	.015 x 45° OR .015R
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
SCALE 2:1	DATE 2/22/2016
	USED ON MODEL EC145
	SHEET 12 OF 22

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				APPROVED

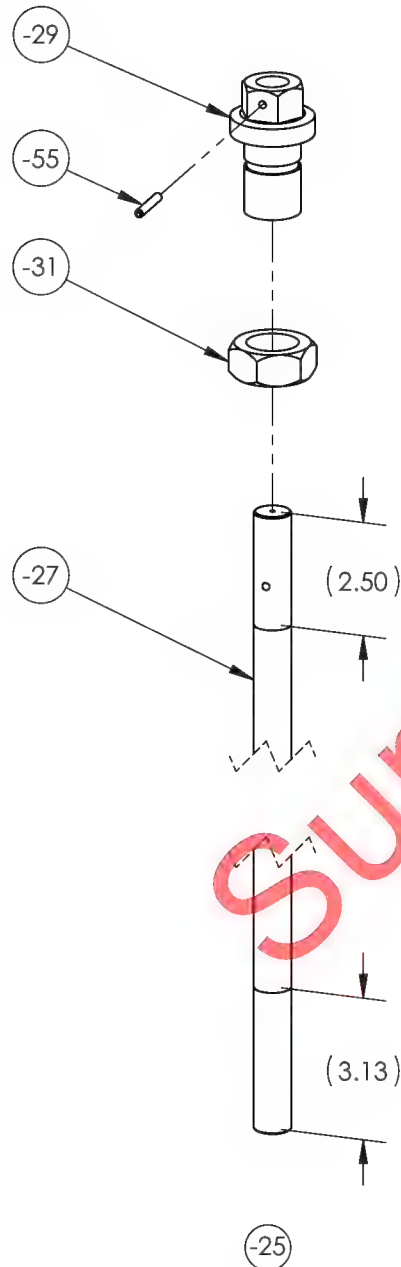


(23)
WASHER

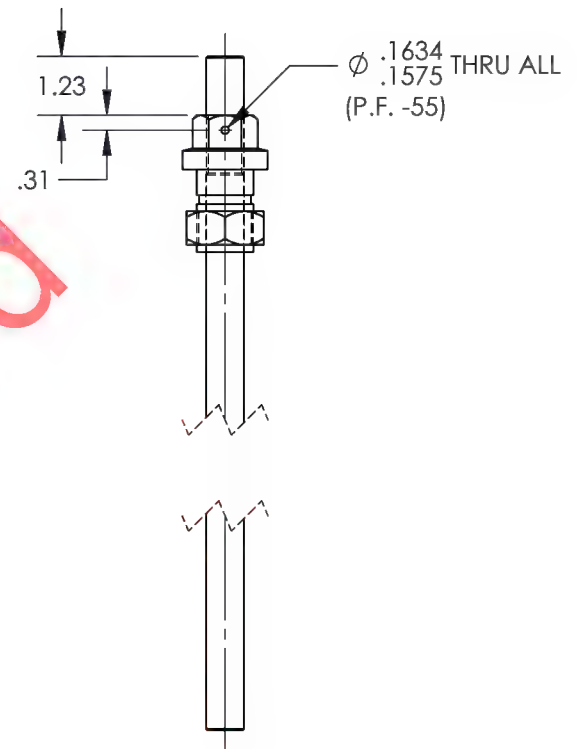
DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-23	REV 1
MAT'L 4140/4142 Q & T	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH BLACK OXIDE	.XXX \pm .005 FRACTIONS \pm 1/8
SPEC QMSI-6.2.2, B.O. REV D	.XX \pm .01 ANGLES \pm .5°
DRAWN BY: DUERFELDT	.X \pm .1 SURFACES = 125°
CHECKED: CLOUGH	1. BREAK ALL SHARP EDGES
OPPS APPR: ANDERSON	.015 x 45° OR .015R
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
SCALE 2:1	DATE 2/22/2016
	SHEET 13 OF 22

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
				APPROVED



LONG ROD ASSEMBLY



DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-25	REV 1
MAT'L TREAT FINISH	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125°
SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
CHECKED: CLOUGH	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	EC145
SCALE 1:4	DATE 2/22/2016
SHEET 14 OF 22	

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REV	ECR	DESCRIPTION	DATE	INITIAL
				APPROVED



(-27)

LONG ROD

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-27	REV 1
MAT'L O-1	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH BLACK OXIDE	.XXX ± .005 FRACTIONS ± 1/8
SPEC QMSI-6.2.2, B.O. REV D	.XX ± .01 ANGLES ± 5°
DRAWN BY: DUERFELDT	.X ± .1 SURFACES = 125
CHECKED: CLOUGH	1. BREAK ALL SHARP EDGES
OPPS APPR: ANDERSON	.015 x 45° OR .015R
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY
APPROVED: GILBERT	AFTER PLATING
	3. INTERPRET DIM AND TOL PER
	ASME Y14.5M-2009
	USED ON MODEL
	EC145
SCALE 1:2	DATE 2/22/2016
	SHEET 15 OF 22

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL

M20X2.5 - 6H THRU ALL

Ø 1.765

.09 X 45°

Ø 1.182

THREAD RELIEF

M30x2.0 - 6g

Ø .805 ± 1.61

3X 1.175

.39

.535

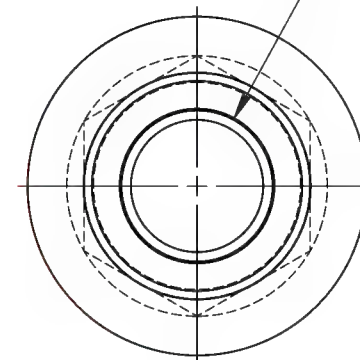
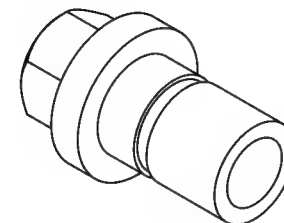
1.00

1.72

2.85

(-29)

NUT

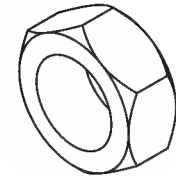
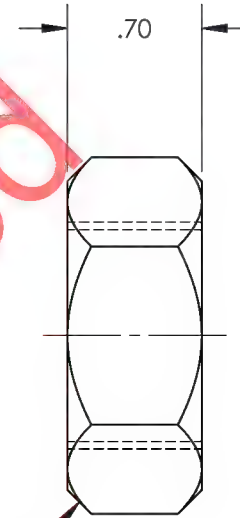
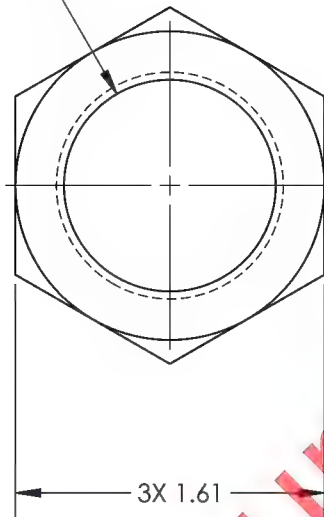


TITLE		MAST REPLACEMENT KIT	
DWG NO.	RBE117-12010W62D-29		REV 1
MAT'L 4140/4142 Q & T	UNLESS OTHERWISE SPECIFIED		
HEAT TREAT	DIMENSIONS ARE IN INCHES		
FINISH BLACK OXIDE	.XXX ± .005 FRACTIONS ± 1/8		
SPEC QMSI-6.2.2, B.O. REV D	.XX ± .01 ANGLES ± 5°		
DRAWN BY: DUERFELDT	.X ± .1 SURFACES = 125°		
CHECKED: CLOUGH	1. BREAK ALL SHARP EDGES		
OPPS APPR: ANDERSON	.015 x 45° OR .015R		
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY		
APPROVED: GILBERT	AFTER PLATING		
SCALE 1:1	DATE 2/22/2016	SHEET 16 OF 22	

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REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED	

M30X2.0 - 6H THRU ALL



2X .12 X 45°

(-31)

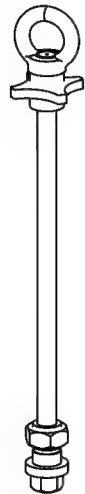
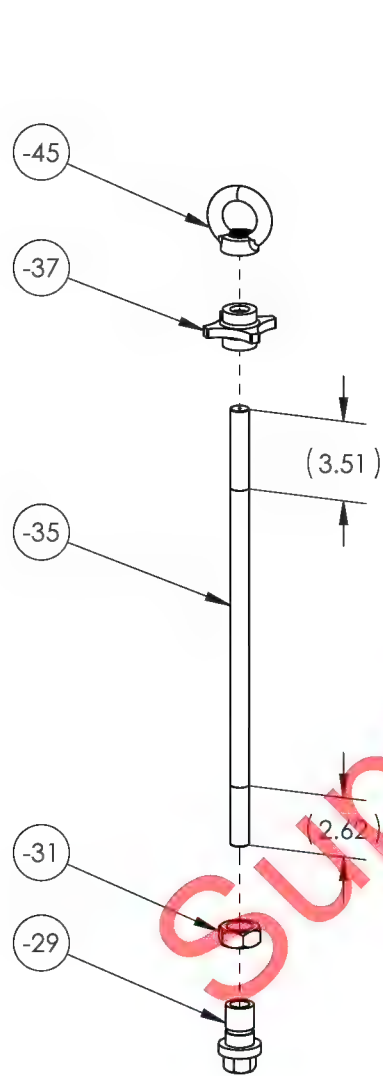
HEX NUT



TITLE				MAST REPLACEMENT KIT					
DWG NO.				RBE117-12010W62D-31				REV 1	
MAT'L 4140/4142 Q & T				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125° ✓					
HEAT TREAT									
FINISH BLACK OXIDE									
SPEC QMSI-6.2.2, B.O. REV D									
DRAWN BY: DUERFELDT				1. BREAK ALL SHARP EDGES .015 x 45° OR .015R					
CHECKED: CLOUGH				2. DIMENSIONAL LIMITS APPLY AFTER PLATING					
OPPS APPR: ANDERSON				3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009					
QA APPR: LINDSAY				USED ON MODEL					
APPROVED: GILBERT				EC145					
SCALE 1:1				DATE 2/22/2016				SHEET 17 OF 22	

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				APPROVED



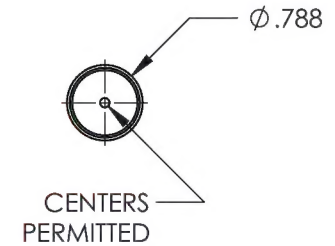
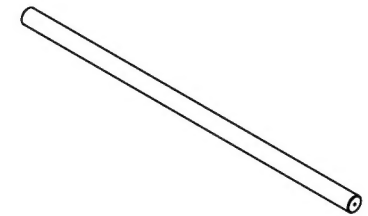
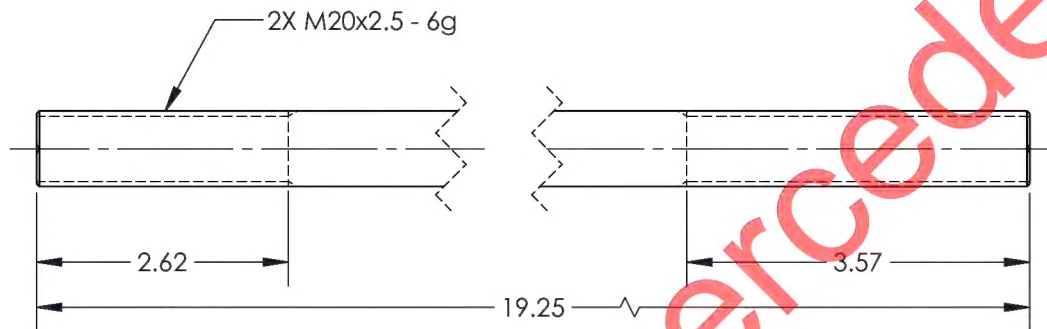
(33)

SHORT ROD ASSEMBLY

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-33	REV 1
MAT'L TREAT FINISH SPEC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125°
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	EC145
SCALE 1:8	DATE 2/22/2016
SHEET 18 OF 22	

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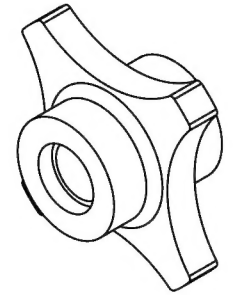
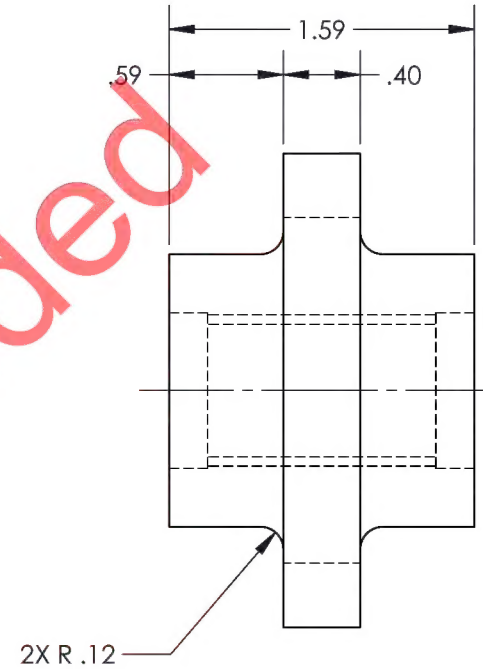
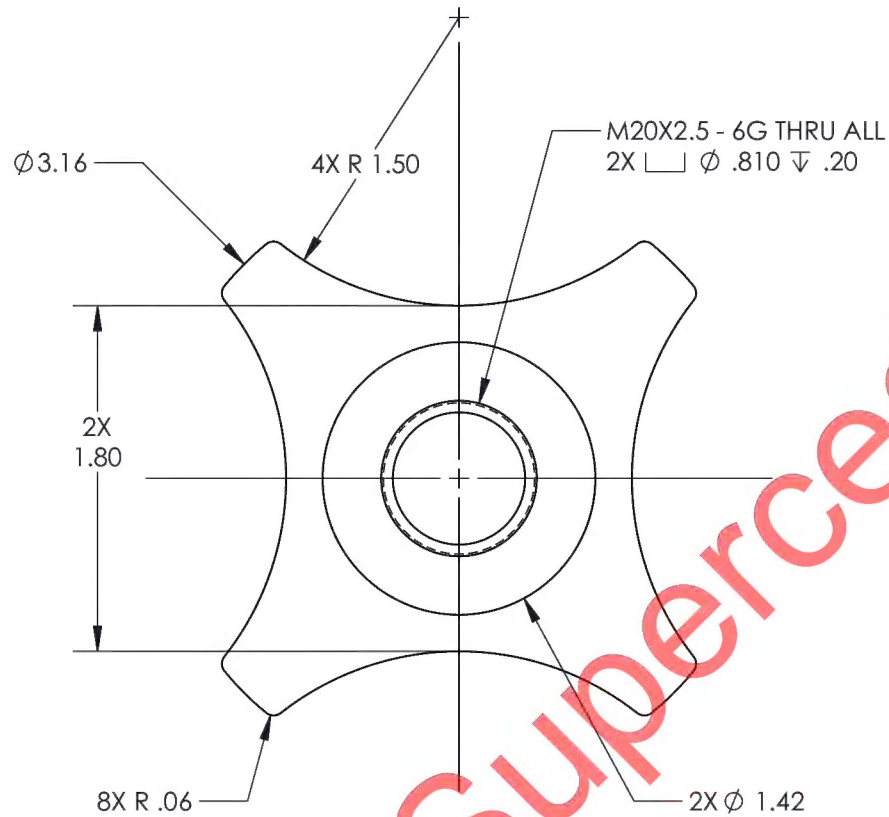


(-35)
SHORT ROD

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-35	REV 1
MAT'L O-1	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH BLACK OXIDE	.XXX ± .005 FRACTIONS ± 1/8
SPEC QMSI-6.2.2, B.O. REV D	.XX ± .01 ANGLES ± 1/8
DRAWN BY: DUERFELDT	.X ± .1 SURFACES = 125°
CHECKED: CLOUGH	1. BREAK ALL SHARP EDGES
OPPS APPR: ANDERSON	.015 x 45° OR .015R
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY
APPROVED: GILBERT	AFTER PLATING
SCALE 1:2	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
DATE 2/22/2016	USED ON MODEL
SHEET 19 OF 22	EC145

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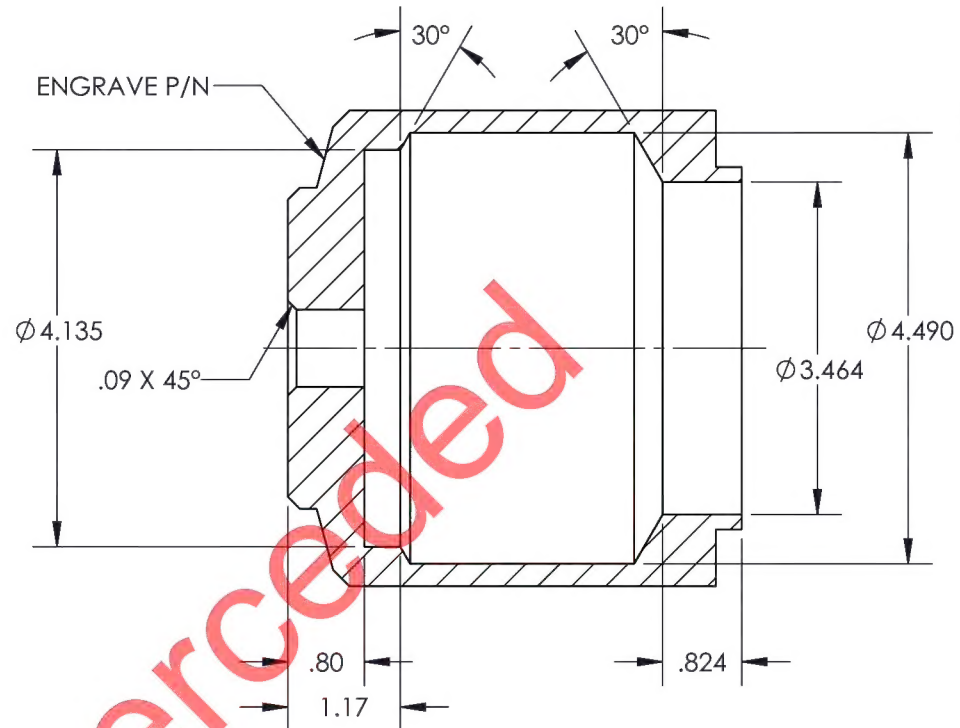
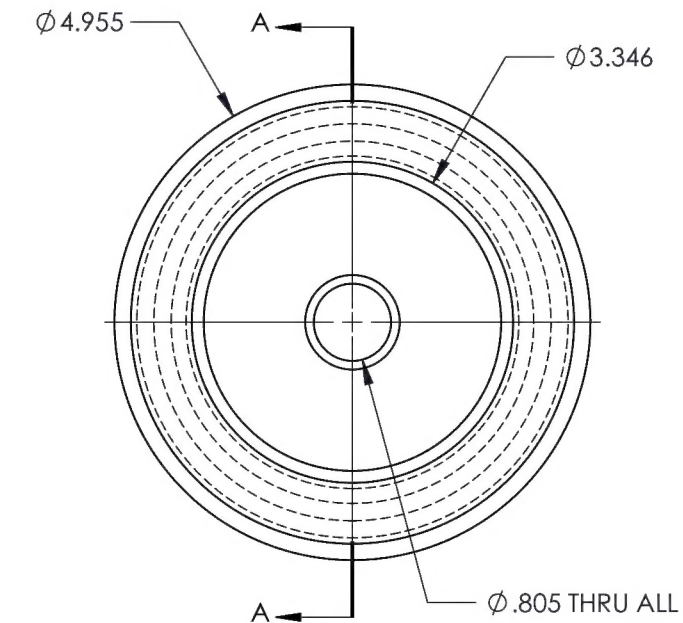


(-37)
LOBED NUT

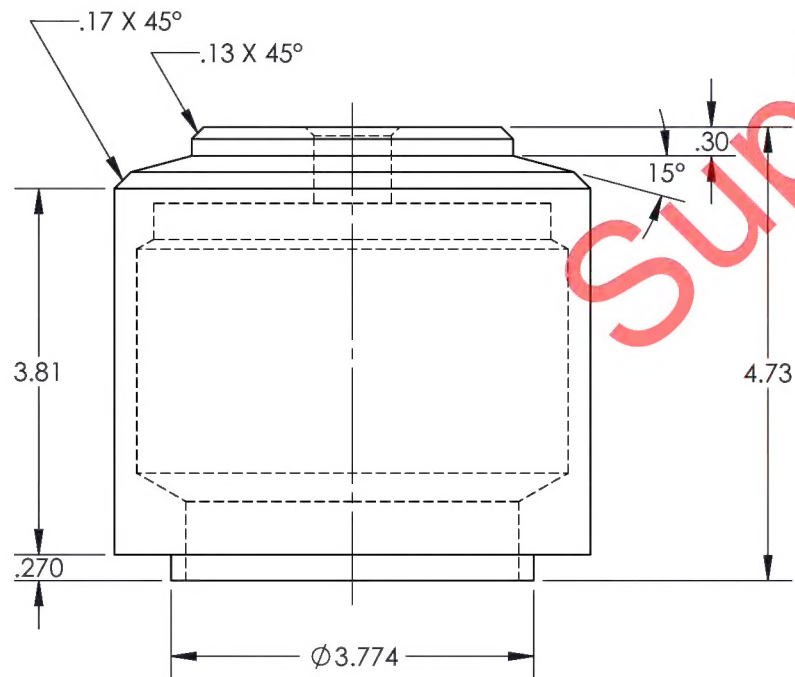
DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-37	REV 1
MAT'L 4140/4142 Q & T TREAT FINISH BLACK OXIDE SPEC QMSI-6.2.2, B.O. REV D	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX \pm .005 FRACTIONS \pm 1/8 .XX \pm .01 ANGLES \pm 5° .X \pm .1 SURFACES = 125°	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: CLOUGH	EC145
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:1	DATE 2/22/2016
SHEET 20 OF 22	

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SECTION A-A



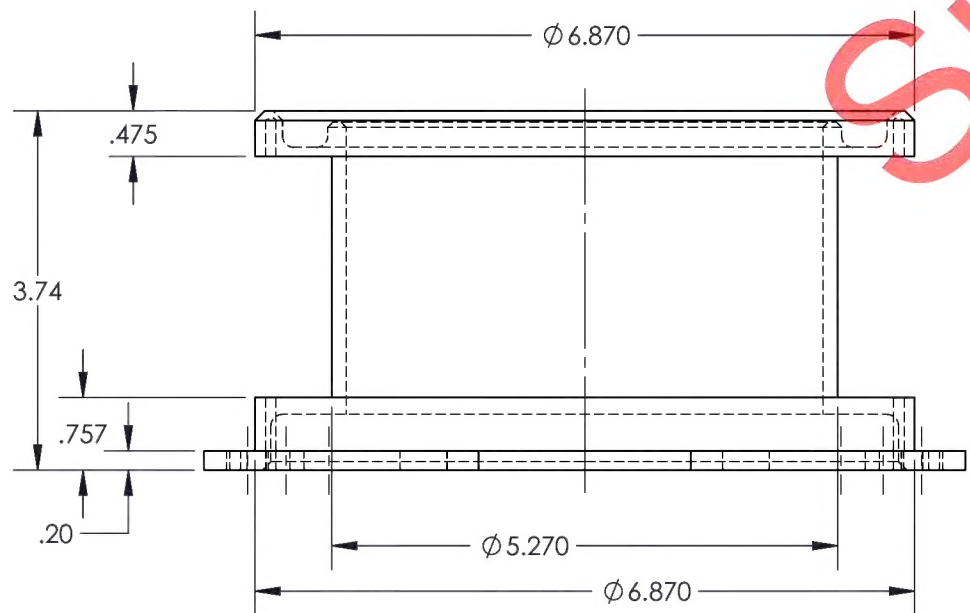
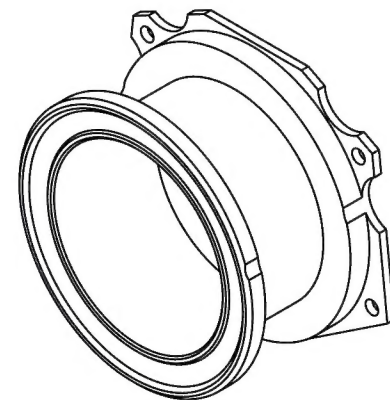
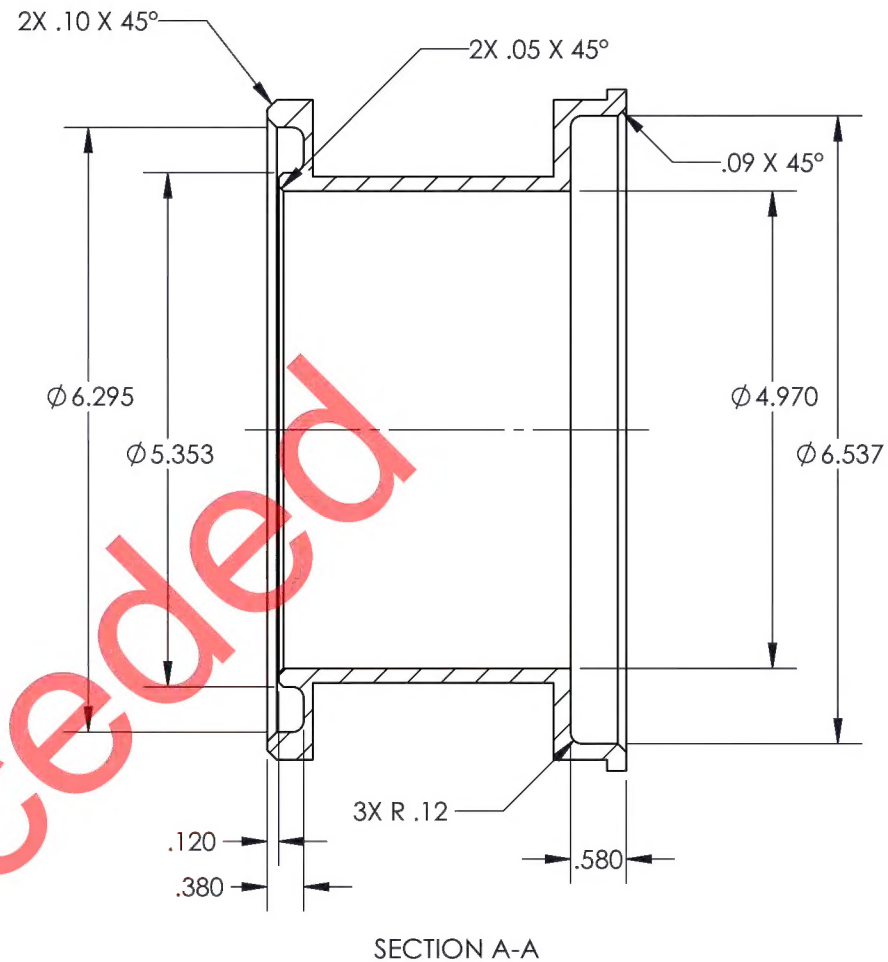
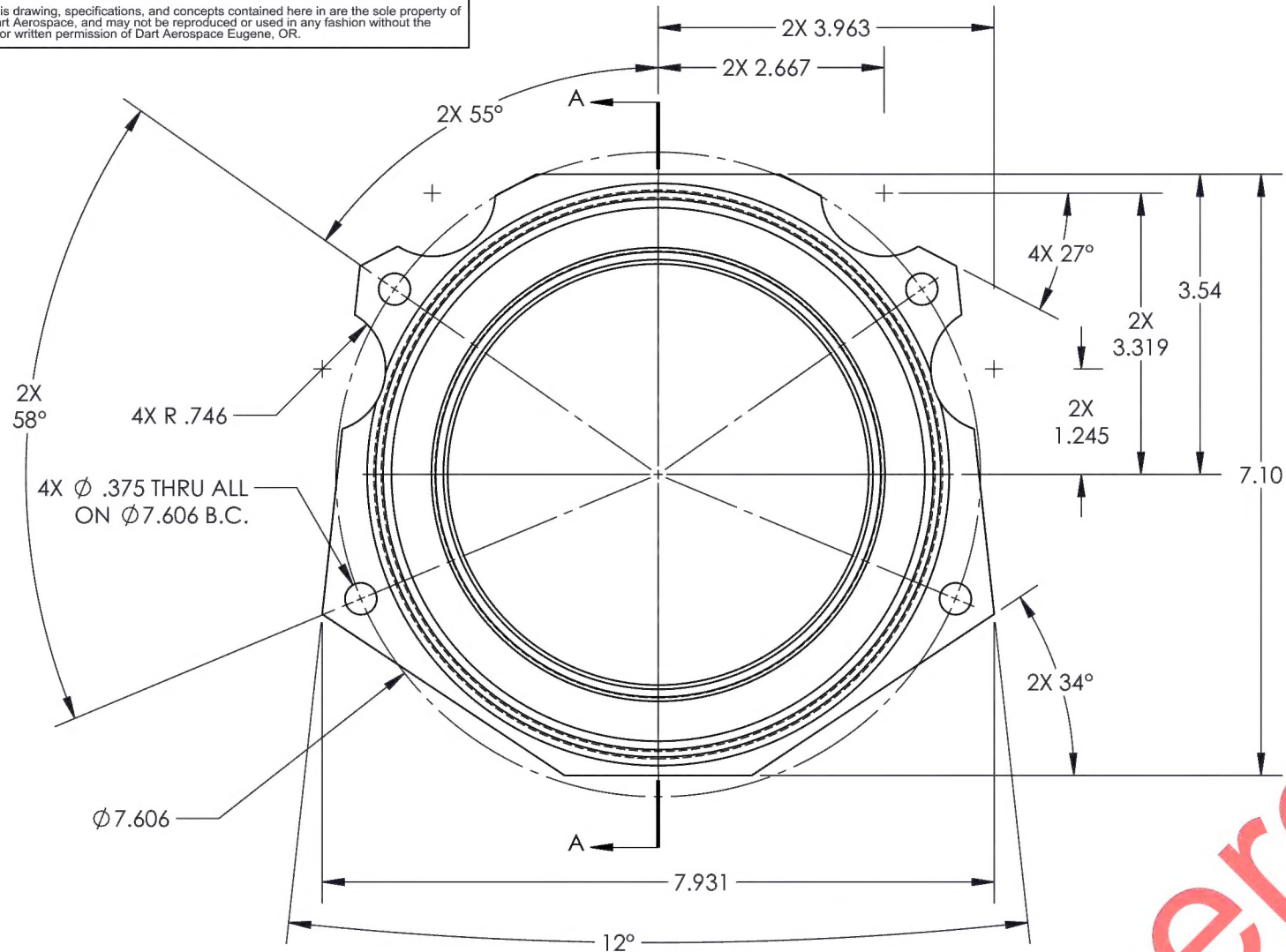
(-39)

PULLER PISTON

DART AEROSPACE	
TITLE MAST REPLACEMENT KIT	
DWG NO. RBE117-12010W62D-39	REV 1
MAT'L 4140/4142 HEAT TREAT FINISH BLACK OXIDE SPEC QMSI-6.2.2, B.O. REV D	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125°	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: MACKOVJAK	USED ON MODEL EC145
CHECKED: CLOUGH	
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:2	DATE 2/22/2016
SHEET 21 OF 22	

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REV	ECR					



PULLER CYLINDER

DART AEROSPACE			
TITLE MAST CHANGE KIT			
DWG NO. RBE117-12010W62D-41			REV 1
MAT'L 4140/4142		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT TREAT		.XXX ± .005 FRACTIONS ± 1/8	
FINISH BLACK OXIDE		.XX ± .01 ANGLES ± 5°	
SPEC QMSI-6.2.2, B.O. REV D		.X ± .1 SURFACES = 125✓	
DRAWN BY: MACKOVJAK		1. BREAK ALL SHARP EDGES .015 X 45° OR .015R	
CHECKED: CLOUGH		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY		USED ON MODEL	
APPROVED: GILBERT		EC 145	
SCALE 1:2		DATE 2/22/2016	SHEET 22 OF 22